**Serial No.:** 10/774,187 **Filed:** February 5, 2004

Title: FLUORINATED POLYMER AND AMINE RESIN COMPOSITIONS

AND PRODUCTS FORMED THEREFROM

Applicant: Wright, et al. Examiner: Chen, Vivian Group: 1773

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## **Listing of Claims:**

Please amend the claims as follows:

1. (currently amended) A laminate according to claim 8 wherein the oxetane is selected from

$$CH_2$$
  $CH_2$   $CH_2$   $CH_2$ 

Ωť

$$Rf - (CH_2)_n - O - CH_2 - CH_2 - O - (CH_2)_n Rf$$

$$CH_2 - C - CH_2$$

wherein n is an integer from 1 to  $5 \ \underline{3}$ , Rf is independently on each monomer a linear or branched alkyl group of from about 1 to about 20 carbon atoms being at least 25% perfluorinated with the H atoms of said Rf being replaced by F, and R is H or an alkyl of 1 to 6 carbon atoms.

- 2. (original) The laminate of claim 1 wherein the polymer and the melamine resin are coreactable.
- 3. (original) The laminate of claim 2 wherein the polymer and the melamine resin are crosslinkable.
- 4. (original) The laminate of claim 1 wherein the melamine resin is derived from reaction with formaldehyde.
- 5. (original) The laminate of claim 1 wherein the melamine resin is at least partially alkylated.

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6. (original) The laminate of claim 5 wherein the melamine resin is at least partially alkylated by reaction with one or more C1-C4 alcohols.

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- 7. (original) The laminate of claim 6 wherein the melamine resin is at least partially alkylated by reaction with one or more alcohols selected from the group consisting of n-butanol, n-propanol, isopropanol, ethanol, and methanol.
- **8.** (previously presented) A laminate comprising a layer derived from reactive ingredients comprising:
  - (a) a polymer comprising at least one polyester segment and at least one polyether segment comprising monomeric units derived from oxetane and a pendent fluorinated group comprising:
    - (i) a fluorocarbon moiety, and
    - (ii) an ether moiety, wherein the fluorocarbon moiety is linked to the polyether segment via the ether moiety; and
  - (b) a melamine resin.
- 9. (original) The laminate of claim 8 wherein the monomeric units derived from oxetane comprise the pendent fluorinated group having a formula:  $-CH_2$ -O- $(CH_2)_n$ -Rf, wherein said Rf group is a linear or branched alkyl group of 1 to 20 carbon atoms with a minimum of 25 percent of the hydrogens of said alkyl groups being replaced by F, or said Rf group being an oxaperfluorinated or perfluorinated polyether having from 4 to 60 carbon atoms, and n being from 1 to 3.
- 10. (original) The laminate of claim 9, wherein said Rf group is a linear or branched perfluorinated alkyl group of 1 to 20 carbon atoms.
- 11. (original) The laminate of claim 8, wherein polyether segment comprises monomeric units derived from tetrahydrofuran.

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- 12. (original) The laminate of claim 1 comprising a substrate wherein the layer is disposed on the substrate.
- 13. (original) The laminate of claim 1 wherein the substrate is thermoformable.
- 14. (previously presented) A method for forming a laminate comprising steps of: providing a composition comprising reactive ingredients of:
  - (a) a polymer comprising at least one polyester segment and at least one polyether segment, wherein the polyether segment comprises monomeric units derived from oxetane and a pendent fluorinated group comprising:
    - (i) a fluorocarbon moiety, and
    - (ii) an ether moiety, wherein the fluorocarbon moiety is linked to the polyether segment via the ether moiety; and
- (b) a melamine resin; and incorporating the composition into a laminate.
- 15. (original) The method of claim 14 where in the step of incorporating, (a) and (b) are reacted to form a crosslinked composition
- 16. (previously presented) A reaction product derived from reactive ingredients comprising:
  - (a) a polymer comprising at least one polyester segment and at least one polyether segment comprising monomeric units derived from oxetane, wherein the polyether segment comprises a pendent fluorinated group comprising:
    - (i) a fluorocarbon moiety, and
    - (ii) an ether moiety, wherein the fluorocarbon moiety is linked to the polyether segment via the ether moiety; and
  - (b) a melamine resin.

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17. (previously presented) A method for preparing a multilayered article comprising steps of: providing a composition comprising reactive ingredients of:

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- (a) a polymer comprising at least one polyester segment and at least one polyether segment comprising units derived from oxetane, wherein the polyether segment comprises a pendent fluorinated group comprising:
  - (i) a fluorocarbon moiety, and
  - (ii) an ether moiety, wherein the fluorocarbon moiety is linked to the polyether segment via the ether moiety; and
- (b) a melamine resin; and using the composition to form a layer on a substrate.
- 18. (original) The method according to claim 17, wherein the substrate comprises a cellulosic product, fiber, synthetic polymer, metal, or ceramic.
- 19. (original) The method according to claim 17, wherein the substrate includes a layer of plasticized vinyl chloride polymer.
- 20. (original) The method according to claim 17, performed to make a wallcovering.
- 21. (original) The method according to claim 20, performed to make a dry erase surface.
- 22. (original) The method of claim 17 where in the step of using the composition to form a layer on a substrate comprises heating the composition to at least about 150°F.